

REMARKS/ARGUMENTS

Claims 1-6, 9-29, 32-54, 57, 61-69, and 71-77 are pending in the application. Claims 1-6, 9-29, 32-54, 57, 61-69, and 71 were rejected and claim 71 was found to be allowable. Applicant thanks the Examiner for the indication of allowable subject matter.

Applicant amends claims 15, 20, and 50 and adds new claims 72-77. No new matter is added by amendment. Applicant respectfully requests entry of the amendments, as finality of the action is believed to be improper. Applicant respectfully requests reconsideration and allowance of all pending claims.

Request for Withdrawal of Finality

Applicant respectfully requests withdrawal of finality of the office action. Applicant submits that finality is improper because the final action included new grounds of rejection that were neither necessitated by Applicant's amendment nor based on any information statement submitted by the Applicant during the period set forth in 367 CFR 1.97(c).

As discussed in the MPEP 706.07(a), "Under present practice, second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims, nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p)."

Claims 50-54 and 57 were newly rejected under 35 U.S.C. §101 as directed to non-statutory subject matter. The new grounds of rejection were not necessitated by Applicant's amendment. Indeed, the rejection under §101 is not based on the substance of the claimed instructions but rather the alleged status of computer readable medium as non-statutory subject matter.

Applicant did not submit any Information Disclosure Statement during the period set forth in 37 CFR 1.97(c), and as such, there is no basis for finality based on such a submission. As set forth above, the rejection of claims 50-54 and 57 is not based on prior art, but instead based on the claims allegedly being directed to non-statutory subject matter.

Applicant respectfully requests withdrawal of the finality of the rejection. The finality of the rejection is improper, because the rejection includes new grounds of rejection not necessitated by Applicant's amendment.

Discussion of Rejections Under 35 U.S.C. §101

Claims 50-54 and 57 were rejected under 35 U.S.C. §101 as directed to non-statutory subject matter. *See, Office Action*, at page 2, (*citing* MPEP 2106 IV B I(a)). Applicant amends claim 50 to direct the claim to "A computer-readable medium encoded with a computer program comprising instructions to cause a processor to determine a position solution for a mobile unit."

As set forth in MPEP 2106.01, "When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and *will be statutory in most cases* since use of technology permits the function of the descriptive material to be realized." As stated in MPEP 2106.01, "In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component."

The MPEP expressly identifies as statutory subject matter "functional descriptive material recorded on some computer-readable medium." Indeed, the MPEP states: "In contrast, *a claimed computer-readable medium encoded with a computer program* is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and *is thus statutory*. *See Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035." MPEP 2106.01 I, (*emphasis added*). The MPEP goes on to state: "When a computer program is recited in conjunction with a physical structure, such as a computer memory, USPTO personnel should treat the claim as a product claim." *Id.*

Claims 50-54 and 57 are directed to "[a] computer-readable medium encoded with a computer program." The computer program comprises instructions that define structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized. This is imparting of functionality provides the foundation for the claim as directed to statutory subject matter, as set forth in the MPEP.

Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. §101.

Discussion of Rejections Under 35 U.S.C. §102

Claims 1-6, 9, 11-13, 15-24, 27-29, 33-38, 43-57, and 61-69 were rejected under 35 U.S.C. §102(e) as allegedly anticipated by U.S. Patent No. 6,445,927 to King et al. (hereinafter King).

Claim 1 recites a method that includes “determining a position solution for a mobile unit based on a hybrid position location technique for an asynchronous environment, and as a function of the received signals, a number of independent measurements based on a position location technique for a synchronous environment, and using a the common system synchronization bias.” As claimed, the position solution is determined based on “a hybrid position location technique for an asynchronous environment” but the number of independent measurements is based on “a position location technique for a synchronous environment” in conjunction with the common system synchronization bias.

As described in Applicant’s Specification, a hybrid position location technique utilizes signals from the satellite positioning system as well as signals from one or more base stations. *See, Specification*, at paragraph [0005]. (“The hybrid receivers utilize the signals from the base stations, as well as any acquired signals from GPS satellites, to resolve the position and time variables.”). The mere inclusion of base station measurements with satellite positioning signals is not sufficient to characterize a hybrid positioning system as either asynchronous or synchronous.

As explained in Applicant’s Specification, “from the perspective of mobile unit 4, a common synchronization bias may exist between the two systems 5, 7, even though the systems are designed to operate synchronously in time.” *Specification*, at paragraph [0023]. As further explained in Applicant’s Specification, “In cases where the two system times are not well synchronized, *referred to herein as asynchronous environments*, asynchronous techniques may be used to resolve independent system times, but require an additional measurement by mobile unit 4 to produce accurate results.” *Id.*, at paragraph [0024]. (*emphasis added*). Thus, as

explained in Applicant's Specification, the mere existence of a system time bias is not sufficient to determine whether the system is operating synchronously or asynchronously.

Furthermore, Applicant's Specification distinguishes the position location techniques utilized in a synchronous environment differs from the position location techniques utilized in an asynchronous environment. In particular, Applicant notes that asynchronous position location techniques require at least one additional measurement. *See, id.*, at paragraph [0024].

King fails to describe any distinction between "a hybrid position location technique for an *asynchronous* environment" and "a position location technique for a *synchronous* environment." Indeed,, King never discusses the differences between asynchronous and synchronous environments or how the position location techniques may differ depending on the type of environment.

As a result, King fails to describe how a position solution for a mobile unit may be determined based on "a hybrid position location technique for an asynchronous environment" but where the number of measurements is "a number of independent measurements based on a position location technique for a synchronous environment."

The Examiner's comments in the Response to Amendment portion from the office action reveals a misinterpretation of the claimed distinction between synchronous and asynchronous environments. The Examiner states that King describes every claimed limitation because "the computation was included in two different systems - satellites and a base station (hybrid synchronous and/or asynchronous environment)." *See, office action*, at page 2. The Examiner's statement reveals that the Examiner has not appreciated that the existence of the two separate systems, by themselves, is not sufficient to determine whether a synchronous or asynchronous environment exists. Furthermore, the Examiner's statement fails to address the number of independent measurements in a synchronous environment, or obtaining a position solution in an asynchronous environment using a number of independent measurements determined from a position solution for a synchronous environment.

Applicant respectfully requests reconsideration and allowance of claim 1, because King fails to describe every claimed feature.

Claims 15, 24, 38, 47, 50, and 61 include similar features to those discussed above in relation to claim 1 and are all believed to be allowable over King at least for the reasons

presented above in relation to claim 1. Applicant respectfully requests reconsideration and allowance of claims 15, 24, 38, 47, 50 and 61.

Discussion of Dependent Claims

Claims 2-6, 9-14, 25-29, 32-37, 39-49, 51-54, 57, 62-63, and 65-69 depend, either directly or indirectly from one of claims 1, 15, 24, 38, 47, 50, 61 or 64 and are believed to be allowable at least for the reason that they depend from an allowable base claim.

The dependent claims that were rejected as anticipated by or obvious over King are believed to be allowable at least for the reason that King fails to describe every claimed feature of the independent claims from which they depend.

Dependent claims 25-26 and 41-42 that were rejected under 35 U.S.C. §103(a) as unpatentable over King in view of U.S. Patent Application Publication No. 20030236818 to Bruner et al. (hereinafter Bruner) are believed to be allowable at least for the reason that they depend from an allowable base claim. Dependent claims 10, 14, and 32 that were rejected under 35 U.S.C. §103(a) as unpatentable over King in view of U.S. Patent No. 6,707,422 to Sheynblat et al. (hereinafter Sheynblat) are believed to be allowable at least for the reason that they depend from an allowable base claim.

Neither Bruner nor Sheynblat cure the deficiencies in King alone. Thus, the combination of King with either of Bruner or Sheynblat continues to lack the teaching or suggestion of the elements discussed above in relation to King alone.

Each of the dependent claims may have individual bases for patentability beyond those discussed above in relation to the independent claims. It is not necessary to discuss the patentable distinctions of each dependent claim because of the allowability of the base claims from which they depend. However, Applicant provides some illustrative examples.

Claim 11 recites a method that depends from claim 1. The method includes “detecting the presence of one or more erroneous distance measurements from one or more of the signals based on the M distance measurements and the synchronization bias,” where the term “signals” refers to “a total of M signals from the wireless communication system and the satellite navigation network.” The Examiner argues that King anticipates this claim, and cites to King, at Col. 4, ll. 5-65. *See, office action*, at pp. 4-5.

However, the cited column from King describes, generally, the method illustrated in King Figure 4 of “calibrating BS locations and perceived time bias offsets.” *King*, at Col. 4, ll. 13-14. This portion of King, and King in general, fails to teach or suggest any manner of detecting an erroneous distance measurement. Indeed, the portion from King cited and relied upon by the Examiner fails to even discuss signals from a satellite navigation network. Thus, claim 11 is believed to be allowable because King fails to describe the claimed feature, and is believed to be allowable for this reason apart from any other reason presented above in relation to the base claim from which claim 11 depends.

Claims 39 includes the feature of “the server selectively retrieves synchronization bias data from a database based on an identifier for the device.” The Examiner rejects the claim by taking official notice that “the concept of providing information to an identified mobile terminal is well known in the art.” *Office action*, at page 10. Applicant respectfully objects to the taking of official notice and requests the Examiner provide an express citation to prior art references supporting the rejection.

Applicant’s claim 39 does not merely recite sending just any information to a mobile station. Instead, Applicant’s claim 39 is directed to sending synchronization bias that is based on an identifier for a device. The Examiner fails to cite to any reference that teaches or suggests that synchronization bias data can be selectively retrieved based on a device identifier. Applicant respectfully requests withdrawal of the rejection based on official notice.

Claim 40 includes the feature of “the server maintains a database to store data defining a set of synchronization biases arranged in accordance with identifiers for respective regions of the wireless communication system.” Applicant also objects to the taking of official notice to the claimed element and requests the Examiner provide an express citation to prior art references supporting the rejection.

There is nothing in the Examiner’s reason for taking official notice (“the concept of providing information to an identified mobile terminal is well known in the art”) that in any way teaches or even suggests the claimed feature of arranging synchronization biases in accordance with identifiers of respective regions. Applicant respectfully requests withdrawal of the rejection based on official notice.

Discussion of New Claims

Claims 72-77 were added by amendment. No new matter is added by the amendment. Claims 72-77 are believed to be allowable at least for the reason that they depend from claim 71, which is indicated as allowable.

Applicant respectfully requests allowance of claims 72-77.

CONCLUSION

Applicant believes that all claims pending in the application are allowable. Applicant therefore respectfully requests that a timely Notice of Allowance be issued in this case.

Applicant believes that the instant response is filed within the Shortened Statutory period for response provided in the Office Action of April 2, 2008.

If there are any other fees due in connection with the filing of the response, please charge the fees to our Deposit Account No. 17-0026. If a fee is required for an extension of time under 37 CFR 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned.

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